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INTERNATIONAL REVIEW OF INTEGRATED COASTAL ZONE MANAGEMENT

VOLUME II: NATIONAL MODELS

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Literature Review to Identify International ICZM Models: UNITED STATES

FEDERAL LEVEL ISSUES AND PROGRAMS
STATE LEVEL PROGRAMS

FEDERAL LEVEL ISSUES AND PROGRAM

A B C D E F G H I J K L M N O P R S T U V W

Adams, M.B. and McCreary, S.T. 1989. Institutional Arrangements for State Coastal Management Programs-Some Strengths and Weaknesses. Coastal Zone 89' Proceedings of the Sixth Symposium on Coastal and Ocean Management,Charleston, SC, USA. July 11-14, 1989. pp. 2558-2572

Archer, J.H. 1985. The concept of coastal zone management. International Symposium on Utilization of Coastal Ecosystems: Planning, Pollution, and Productivity, Rio Grande, RS (Brazil). 21 Nov 1982 Proceedings of the international symposium on utilization of coastal ecosystems. planning, pollution and productivity (eds. Labish-Chao and Kirby, N. Smith, W., pp. 27-38

Competing pressures on the coastline of the United States led to the passage of the Coastal Zone Management Act of 1972. The act recognized the roles of local, state and federal government by

establishing a partnership process for managing coastal resources. The federal role was designed to provide a degree of continuity and to assure that all states receiving federal financial assistance were complying with the basic objectives established in the Act. After ten years of experience, federal financial assistance is phasing down. The future success of the state coastal zone management programs will depend in great part on the degree of achievement realized to date. Achievements have been made in the following areas: (1) permit simplification and streamlining; (2) development of ports and waterfronts; (3) prevention of loss of life and property due to improper development in coastal hazard areas; and (4) protecting natural resources.

Archer, J. H. 1988. Coastal management in the United States: a selective reviewand summary. International Coastal Resources Management Project, Coastal Resources Center, The University of Rhode Island.

Archer, J.H. 1989. Resolving Intergovernmental Conflicts in Marine Resources Management: The US Experience. Ocean and Shoreline Management. 12 (3), pp. 253-269.

Intergovernmental conflict in US marine resource management programs has its source in the federalist system of separate but unequal political sovereigns. This paper examines intergovernmental conflict in four marine resource management areas (coastal resources, fisheries, offshore oil and gas, and marine mammals) and argues that, within this constitutional and political context, intergovernmental conflict in the United States tends to be resolved by expanding the policy and decision-making process to include states, local governments, and organizations whose interests have been insufficiently accommodated in an existing resource management scheme.

Archer, J.H. 1991. Evolution of Major 1990 CZMA Amendments: Restoring Federal Consistency and Protecting Coastal Water Quality. Territorial Sea Journal: A Legal and Policy Journal. 1 (2), pp. 191.

Archer, J.H. and Knecht, R.W. 1987. The U.S. National Coastal Zone Management Program problems and opportunities in the next phase. Coastal Zone Management 15 (2), pp. 103-120.

Coastal zone management (CZM) in the United States is accomplished through a cooperative federal and state program to manage and protect coastal resources. This paper examines the U.S. CZM program at the federal and state levels. It describes the major provisions of the Coastal Zone Management Act, the record of national program development in the 1970s and early 1980s, and setbacks to CZM which have occurred during the Reagan administration. The authors propose basic policies which should, but do not, govern the conduct of the national CZM program. Specific applications of these policies to ocean and coastal issues and problems are discussed. The paper critically reviews the performance of the current federal managers in administering the national program and recommends actions which should be taken by the Congress and the coastal states to restore the integrity of the CZM process.

Beatley, T. Brower, D.J., Schwab, A.K. 1994. An Introduction to Coastal Zone Mangement. Island Press. Washington D.C.

Beyle, J.L. 1989. A Comparison of the Federal Consistency Doctrine Under FLPMA and the CZMA. Virginia Environmental Law Journal, Fall, 9, (1), pp. 207-225.

The manner in which two acts, the Coastal Zone Management Act of 1972 (CZMA) and the Federal Land Policy & Management Act of 1976 (FLPMA), strive to allocate land use development power between the federal and state and local governments is reviewed. The key issue involves the "federal consistency doctrine," which considers how consistent federal actions must be relative to state

and local policies and decisions. Findings indicate that CZMA led to federal-state cooperation in coastal development, while no such cooperation was evident under FLPMA.

Burgess, J.P. 1989. Status of the Coastal Program - A Federal Perspective. Coastal Zone 89' Proceedings of the Sixth Symposium on Coastal and Ocean Management. Conference Location: Charleston, SC, USA. July 11-14, pp. 2529-2535.

Chases, S. 1985. The Coastal Zone Management Act: A Protective Mandate. Natural Resources Journal. 25. 21-30 .

Cicin-Sain, B. 1992. Ocean Governance: A New Vision. Delaware University, Newark (USA). Sea Grant Coll. Program, pp. 69.

Contents: Research Agenda on Ocean Governance; Implications of the Earth Summit for Ocean and Coastal Governance; Since the Stratton Commission report: Policy Studies in Ocean Governance, 1969 and 1992; Substantive principles for a Constitution for the U.S. Oceans; Lessons for Ocean Governance from History, Ecology, and Economics; Indigenous Conceptions of stewardship; Learning from Other Nations; The Changing International Regime: Implications for U.S. Ocean Management, Organization, and Approaches; Caveats on 'Integration' in Ocean and Coastal Management; Ocean and Coastal Management in the United States: The Need to Incorporate Local, State, and Regional Perspectives; On the Practical Challenges of Improving Ocean Governance: Some illustrations from Louisiana; Assessing Cumulative Impacts; Free Trade and Ocean Governance.

Cicin-Bain, B. and Knecht, R.W. 1991. Multiple Use Ocean Management in the U.S. - Topward a New Conceptual Framework. In. Coastal Zone 91' Proceedings of the Seventh Symposium on Ocean and Coastal Management Long Beach California, USA July 8-12. American Society of Civil Engineers, New York. pp. 2568-2582.

Courtney, F. 1991. A Regional Approach to State Coastal Mangement. In. Coastal Zone 91' Proceedings of the Seventh Symposium on Ocean and Coastal Management Long Beach California, USA July 8-12. American Society of Civil Engineers, New York. pp. 676-680.

Cunningham, M.G. 1988. The Implementation of Policy: Coastal Zone Management . AWRA Coast Water Resource Symposium, Wilmington, North Carolina. pp. 575-587.

In 1972, Congress declared that coastal resource management was of national interest. Enactment of the Coastal Zone Management Act of 1972 was a step to stimulate planning and implementation of management programs through financial assistance to states. From its conception, it was apparent that the vagueness of the federal program would allow states to create and assess goals according to individual priorities. Some states immediately adopted policies that sought the protection of the coastal environment, while others sought the continuation of development programs. In examining this difference in implementation of coastal zone management policy, the states of North and South Carolina exemplify the problems of divergent interests.

Dargan P Q 1995 Staking out new territory: CZMA reauthorization amendments Natural Resources & Environment, 9 (4), pp. 32-37.

Eichenberg, T. and Archer, J.H. 1987. The federal consistency doctrine: coastal zone management and "new federalism." Ecology Law Quarterly; 14 (1) pp. 9-68.

Federal-coastal state equal partnership provision of the Coastal Zone Management Act (CZMA). The federal consistency doctrine; The resolution of consistency conflicts; Consistency, the

national interest, and federal-state relations.

Eichenberg, T. 1992. State Jurisdiction Under the Coastal Zone Management Act After Extension of the U.S. Territorial Sea. Territorial sea journal : a legal and policy journal, 2(1), pp. 118.

Fischer, D.W. 1990. Governing the US coastal zone: an unresolved issue. Ocean and Shoreline Management; 13 (1), pp. 21-34.

The coast often contasts the vastness of the ocean with an intensively used shoreline. Coastal governance attempts to integrate these two spheres within one framework that would reconcile ocean and shoreline use conflicts; however, US coastal governance is rooted in an organizational complexity that inhibits effective governance. The use of the area manageemnt paradigm to reconcile comp[eting interests has not been as successful as hoped; yet, this evolutionary experience appears to be the only avenue available to greater governance capability.

Fischer, A.M. 1995. Area-wide jurisdictional planning: Toward comprehensive and coordinated management typologies. 2nd Annual Marine and Estuarine Shallow Water Science and Management Conference, Atlantic City, NJ (USA), 3-7 April.

Throughout the US, complex, sectorized jurisdictional frameworks constrain estuarine watershed planning. Planners and managers must contend with jurisdictional overlap, regulatory loopholes, lack of agency coordination and goal conflicts. Under such conditions, private rights conflict with public trust interests, restoration programs and urban development lack coordination, and environmental regulations can adversely affect regional interests. These constraints, an inherent problem of such a complex, interaction system, prevents area-wide policy coordination and joint decision-making. The Jurisdictional Restoration Planning (JRP) model of the Liberty Bay Project is such a system. To address simplification, the JRP model provides a medium of information sharing and clarified management roles. Centralized information about jurisdictions in one information system can more easily alert users to the problems associated with overlap, as well as identify goal conflicts and the other constraints. The JRP addresses jurisdictional integration through a dynamic thematic planning process of assigning values to jurisdictional sets of information or Jurisdictional Landscape Units. Once regional themes are established, than greater integration and coordination among the jurisdictions can be formulated into simpler and more comprehensive planning strategies.

Godschalk, D.R. 1992. Implementing Coastal Zone Management: 1972-1990. Coast Management, April-June, 20(2), pp. 93-117.

The administration of the Coastal Zone Mgmt Act (CZMA) of 1972 is illustrative of the process of intergovernmental policy planning. Coastal policy is influenced by coastal state governments, environmentalists, developers, and branches of the federal government. Concern over the effectiveness of general land-use programs during the 1960s led to the passage of CZMA. During the early 1970s, USDI and NOAA vied for control of national coastal policy under CZMA. From 1973-80, NOAA and coastal state governments determined coastal policy. Although the Reagan administration opposed the CZMA authority in the beginning of the 1980s, the latter part of the decade witnessed a rejuvenation of national coastal management.

Hennessey,T. and Robadue,D.D. 1987. A comparison of the governance of Narragansett and San Francisco bays: the role of adaptive implementation. Tenth National Conference - Estuarine and Coastal Management, tools of the trade, New Orleans, LA (USA), 12-15 October, in Proceedings of tenth national conference - estuarine and coastal managment, tools of the trade, New Orleans, Louisana, 12-15 October, 1. (eds. Lynch,M.P and McDonald, K.L.), pp. 73-86.

The authors are currently engaged in a three year systematic, comparative study of the governance process in four estuaries (i.e. Narragansett, San Francisco, Delaware, and Galveston bays) funded by Sea Grant. Implementation structures, processes and outcomes of governance systems are being analyzed and specific criteria for success and failure developed and tested. The study reported in this paper is one part of this larger effort and focuses on the performance of two estuary governance agencies, the Rhode Island Coastal Resources Management Council, CRMC, and the San Francisco Bay Conservation and Development Commission, BCDC.

Hershman, M.J. 1989. Ocean management capacity in U.S. coastal states. Oceans '89: The Global Ocean: Volume One: Fisheries, Global Ocean Studies, Marine Policy and Education, Oceanographic Studies, pp. 99.

As state government seeks a larger role in ocean governance, it will need to improve its capacity to deal with marine resource issues. State capacity changes in response to important triggering events such as proposed offshore oil and gas leasing. Changes occur in organizational design, external relations, and bargaining arenas and methods. Effective state-level leadership is crucial in the management of change. A framework for describing changes in state capacity is presented and applied using recent experience in Oregon and Washington.

Hershman, M.J. 1989. Ocean management capacity in U.S. coastal states. Oceans '89, Seattle Washington (USA), 18-21 September.

As state government seeks a larger role in ocean governance, it will need to improve its capacity to deal with marine resource issues. State capacity changes in response to important triggering events such as proposed offshore oil and gas leasing. Changes occur in organizational design, external relations, and bargaining arenas and methods. Effective state-level leadership is crucial in the management of change. A framework for describing changes in state capacity is presented and applied using recent experience in Oregon and Washington.

Hildreth, R. 1991. Regional Ocean Resources Management. Coastal Zone 91', Proceedings of the Seventh Symposium on Ocean and Coastal Management Long Beach California, USA July 8-12. American Society of Civil Engineers, New York. pp. 2583-2606.

Hildreth, R.G. 1994. The roles of science in U.S. marine policy: Some regional applications. Coastal Management, 22(2), pp. 163-170.

In the United States, the President, Congress, federal and state courts, state governors, state legislatures, coastal local governments, ports, and federal and state marine, environmental, and resource agencies all play important roles in establishing and implementing marine policy. The roles science plays in marine policymaking varies tremendously both with the particular issue and the institution making the policy decisions. While the goal of making marine policymaking more scientific deserves support, there are limits to how scientific marine policymaking can become because the roles of scientists and policymakers are different. Both scientists and marine policymakers should bear those differences in mind as they proceed with the important task of improving the management of the nation's and the world's marine resources. Regional research plans prepared under the Mitchell bill provide marine scientists with an opportunity to coordinate regional marine research in policy-relevant ways.

King, L.R. and Olson, S.G. 1988. Coastal state capacity for marine resources management. Coastal Management, 16 (4), pp. 308-318.

Policies of the Reagan administration appear to have stimulated increased coastal state

activities in marine resource management. This paper uses the notion of government capacity to explore changes within these states. Capacity refers to the institutional structure, expertise, and commitment of political elites to deal with complex policy issues. Following a brief review of institution-building within the states, North Carolina and Texas are used to illustrate contrasting approaches to the development of institutional capacity.

Klesch, W. et al. 1993. A National Coastal Strategy for the Future. Coastal Zone 93'. Proceedings of the Eighth Symposium on Coastal and Ocean Management, New Orleans, Louisiana, July 19-23. American Society of Civil Engineers, New York, pp. 737-752.

Knudson, M.O. and Ratterree, J.H. 1993. Coastal America Gulf of Mexico Region Implementation Strategy. Coastlines of the Gulf of Mexico (eds. Laska, S. and Puffer, A.) American Society of Civil Engineers., New York.

Gulf of Mexico Regional Implementation Team composed on federal and state representatives. Description of program and interagency cooperation.

Koester, G.T. 1990. State-federal jurisdictional conflicts in the U.S. 12-mile territorial sea: An opportunity to end the seaweed rebellion. Coastal Management, 18 (2), pp. 195-211.

The recent extension of the United States' territorial sea from 3 to 12 miles raises substantial questions regarding the domestic allocation of offshore esource jurisdiction between the federal government and the several coastal states. This paper traces the historic development of those questions, suggests that they should be answered by the United States Congress and not the courts, and argues that, by giving the states a larger role in ocean management and a greater share of offshore resource revenues, Congress might reduce the current level of state-federal conflict over ocean management and the "Seaweed Rebellion".

Knecht, R.W. and Archer,J. 1993. 'Integration' in the US coastal zone management program. Ocean and Coastal Management 21(1-3), pp. 183-199.

It is generally acknowledged that the US was the first nation to put into place a reasonably comprehensive national coastal zone management (CZM) program when it enacted the Coastal Zone Management Act in 1972. More recently, the concept of ICM has come to greater prominence as one of the principal recommendations contained in the 'Agenda 21' action plan adopted at the June 1992 United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro-the so-called 'Earth Summit'. In these recommendations, coastal nations were urged to adopt an ICM approach which was 'integrated in content and precautionary and anticipatory in ambit'. Also, the role of international guidelines for ICM was highlighted in the UNCED document. The purpose of this paper is to examine the extent to which the existing US CZM program represents ICM. Are the state and territorial CZM programs comprising the US program 'integrated' in the sense contained in the concept of integrated coastal management now emerging internationally?

Lowry,K. and Eichenberg,T. 1986. Assessing Intergovernmental Coordination in Coastal Zone Management. Policy Studies Review, 6(2), November, pp. 321-329.

One of the primary incentives to state governments to participate in the national coastal zone management program is the legal requirement that federal resources use activities, as well as federal projects & federally permitted activities that affect state ocean & coastal areas, must be consistent with federally approved state coastal programs. These consistency provisions are among the most innovative attempts to insure intergovernmental coordination in resource management. Based on an analysis of

federal records of consistency reviews conducted in 1982 by states & state appeals to the Secretary of Commerce decided in 1984/85, it is found that this legal requirement has led to the development of a variety of formal & informal collaborative mechanisms for intergovernmental coordination in ocean & coastal management. While these mechanisms have led to the resolution of the vast majority of federal-state conflicts in coastal areas, some important federal-state conflicts have not been resolved. This situation has more to do with the character of these particular conflicts than the general effectiveness of the mechanisms for collaboration that have been established.

Lowry,K., Jarman,C and Machida, S. 1992. Federal-state coordination in coastal management. An assessment of the federal consistency provision of the Coastal Zone Management Act. Ocean and Coastal Management, 19 (2), pp. 97-120.

Although much has been written about the federal consistency process of the Coastal Zone Management Act, almost no empirical analysis has been done on the program. In 1988, we surveyed state coastal zone management program officials for data on federal consistency submissions reviewed during the 1987 calendar year. In addition to questions about the frequency and types of consistency reviews conducted, state officials we asked questions about the effectiveness of the consistency mechanism and their relationships with various federal agencies. This article summarizes the results of our assessment and reviews the evolution of federal consistency and its implementation prior to the 1990 amendments.

Miossec, A. 1994. Les cotes atlantiques des Etats-Unis a l'epreuve du coastal zone management act [The Atlantic coast of USA proof against coastal zone management act.] NOROIS , 41 (161), pp. 35-53.

The paper shows the American experience of coastal management initiated in 1972 by the Coastal Zone Management Act; it is also a comparison with the French practice in a political framework quite different as the first regulations took place in the same time in France and in the USA. The CZMA is, in the USA, a "coproduction process" involving coastal states, environmental and development groups together with congressional committees and federal coastal offices. Using an example, the management of coastal risks, the paper shows how coastal states gradually have decided to use soft methods against marine erosion as, in the same time, they organized "setbacks" in coastal development planning, as a response to the discussion of erosion problems all along the coastal US framework.

National Oceanic and Atmospheric Administration (NOAA). 1992. Biennial Report to the Congress on Coastal Zone Mangement. Vol. 1: Executive Summary, September, 1992. Office of Ocean and Coastal Resource Management.

Needham, B. 1991. Case studies of coastal management: experience from the United States. Kingston, R.I.: Coastal Resources Center, The University of Rhode Island.

Office of Coastal Zone Management. 19??. State coastal zone management activities. Washington: U S Dept of Commerce National Oceanic and Atmospheric Administration, Office of Coastal Zone Management.

OECD. 19??. Integration of Environmental Considerations into Coastal Zone Mangement in the United States: A Country Overview Paper. Submitted to Environment Committee Group on Natural Resource Mangement Organization for Economic Cooperation and Development.

Owens, D.W. 1992. National goals, state flexibility, and accountability in coastal zone management. in Coastal Management, 20 (2), pp. 143-165.

The Federal Coastal Zone Management Act sought to address key national goals through the use of individually crafted state and territorial coastal management programs. A review of state program activities and expenditures of CZMA implementation grants for the 1982-1987 period indicates that the states have retained their diversity and ability to tailor programs to meet state defined needs while still addressing key national interests. The states have devoted the bulk of their coastal management expenditures to improving the process of government decision-making and protecting natural resources. The degree to which state programs are contributing to meeting national goals has been poorly documented. Reforms are needed to clearly identify the national interest in coastal management, relate grants, performance reports, and evaluations to those interests, and make better use of tools available for securing more focused and better coordinated national coastal policies.

Perciasepe, R. 1994. EPA's watershed approach to ecosystem management. Fisheries, 19 (4) pp. 4-5.

The reauthorization of the Clean Water Act provides an excellent opportunity to establish programs for comprehensive watershed management. In testimony before the Senate Subcommittee on Clean Water, Fisheries, and wildlife last summer, the Clinton administration proposed a watershed management approach that would focus attention within hydrologically defined watershed areas and engage stakeholders from all levels of government as well as the private sector. Working together, the stakeholders would identify key sources of water pollution and take steps to reduce them.

Rote, J.W. and Denisoff, C.R. 1989. The Coastal State Role in Managing Ocean Resources. In: Coastal Zone 89' Proceedings of the Sixth Symposium on Coastal and Ocean Management, Charleston, SC, USA. July 11-14, pp. 3468-3480.

Saurenman, J.A. and Loeffler, J. 1989. Who Controls State Coastal Programs Lessons from California v. Evans. Coastal Zone 89,' Proceedings of the Sixth Symposium on Coastal and Ocean Management, Charleston, SC, USA. July 11-14, pp. 539-552.

Whitney,S.C. 1988. State implementation of the coastal zone management consistency provisions: ultra vires or unconstitutional? Harvard Environmental Law Report, 12 (1), pp. 67-156.

Conflicts arising out of state implementation of federal policy; with comment; U.S. Includes a review of the federal consistency provision pertaining to issuance of federal licenses and permits.

Wood-Thomas, B.C. 1994. Land-based marine pollution and coastal zone management. Role of state and local government in the USA. Marine Policy, 18 (2), pp. 165-174.

Land-based sources (LBS) are estimated to contribute 80-90% of the total pollutants entering the world's oceans. These sources include a wide spectrum of activities, and, because of this diversity, require the creation of generic distinctions. The most basic distinction, point and non-point, is made on the specificity of the source and relates to the existence, or lack thereof, of a discrete outfall. The USA has relatively few (approximately 350) point sources that discharge directly into the ocean. However, discharges to coastal waters (including estuarine waters) number around 20,000.

STATE LEVEL PROGRAMS

ALABAMA
ALASKA
CALIFORNIA
CHESAPEAKE BAY
MISSISSIPPI
NATIONAL ESTUARY PROGRAM
NATIONAL MARINE SANCTUARIES

CONNECTICUT
FLORIDA
GREAT LAKES
GREAT LAKES
GULF OF MAINE
HAWAII
MAINE
MASSACHUSETTS
NEW HAMPSHIRE
NEW JERSEY
NORTH CAROLINA
OREGON
RHODE ISLAND
TEXAS
VIRGINIA
WASHINGTON

ALABAMA

Office of Coastal Zone Management. 1987. Alabama Coastal Area Management Program and final environmental impact statement. pp. 413

The state of Alabama has submitted its Coastal Area Management Program to the Office of Coastal Zone Management for approval. Approval would permit implementation of the proposed program, allow program administration grants to be awarded to the state, and require that Federal actions be consistent with the Program. The impact statement includes a copy of the Program (Part II) which is a comprehensive management program for land and water use activities. It consists of numerous policies and regulations on diverse management issues which are enforced by various state laws, discusses areas of special interest to the state. (Prepared with Alabama Coastal Area Board, Daphne, AL, USA.)

ALASKA

Alaska. 1990. Kenai Peninsula Borough coastal management program. final document. Soldotna, Alaska.

Seaman, G.A, 1991. The Alaska Coastal Management Program - Development of the Coastal Zone Boundary. In. Coastal Zone 91' Proceedings of the Seventh Symposium on Ocean and Coastal Management Long Beach California, USA July 8-12. American Society of Civil Engineers, New York pp. 681-696.

Seaman, G. 1993. State Implementation and Enforcement of the Alaska Coastal Management Program. In. Coastal Zone 93'. Proceedings of the Eighth Symposium on Coastal and Ocean Management, New Orleans, Louisiana, July 19-23. American Society of Civil Engineers. New York. pp 563-576.

CALIFORNIA

S.A. Amerikaner. 1989. Coastal zone management and problems of intergovernmental relations Proceedings of the Institute on Planning. Zoning and Eminent Domain. pp. 21-37

Burroughs, T. and Baird, B.E. 1995. California's ocean resouces management programs. Natural Resources & Environment. 9 (4) pp. 44-48

Cicin-Sain, B. 1990. California and Ocean Management: Problems and Opportunities Coastal Management, 18 (3), pp. 11-36.

The enactment of the California Ocean Resources Management Act of 1990 created an Ocean

Resources Task Force charged with preparing a report on existing ocean resources management activities and impacts. The history of ocean management in California is assessed leading up to the passage of the Act, and is compared to similar efforts in Oregon, Hawaii, and Washington. Difficulties to be faced in the coming years in California include: divisions between North and South, the absence of a comprehensive maritime tradition, marine industries that are still secondary to the more economically important land-based industries, and the low level accorded to ocean affairs in the state hierarchy.

Cincin-Sain, B. 1991. California and Ocean Management-Problems and Opportunities. The California Coastal Zone Experience. (eds. Domurat, G. and Wakeman, T.) American Society of Civil Engineers, New York. pp. 5-12.

Douglas, P.M. 1991. Ethics, Politics, Art, Accountability and the Quest for Quality in Coastal Management. In. The California Coastal Zone Experience. (eds. Domurat, G. and Wakeman, T.) American Society of Civil Engineers, New York, pp. 12-31.

Grenell, P. 1991. Non-regulatory approaches to management of coastal resources and development in San Francisco Bay. International Conference on the Environmental Management of Enclosed Coastal Seas '90: Kobe, Japan, 3-6 August. Goda,T et al. eds., 23. pp. 503-507.

San Francisco Bay is the largest coastal water body in California. Many large, enclosed water bodies in other countries are likely to experience at least some of the Bay's problems. The management of the Bay's coastal resources may be relevant for other nations now facing similar problems. In particular, the California State Coastal Conservancy's experience as a non-regulatory problem-solving agency may be pertinent to situations which either have similar complex regulatory systems as the Bay Area, or which face problems not amenable to regulatory solution.

Grenwell, P. 1991. A new Framework for Integrated Coastal Zone Management. The California Coastal Zone Experience. (eds. Domurat, G. and Wakeman, T.) American Society of Civil Engineers, New York. pp. 32-45.

McCreary, S.T. and Tietke, C. 1993. A First Look Back at the San Fransisco Estuary Project. In. The Management of Coastal Lagoons and Enclosed Bays. (eds. Sorenson et al.) American Society of Civil Engineers, New York, pp. 205-220.

Northoff, A. 1991. Getting it Right Coastal Management in California Time for Reform. The California Coastal Zone Experience. (eds. Domurat, G. and Wakeman, T.) American Society of Civil Engineers, New York, pp. 242-250.

Wakeman T. and Domurat, G. 1991. The California Coastal Zone Experience. The California Coastal Zone Experience. (eds. Domurat, G. and Wakeman, T.) American Society of Civil Engineers, New York, pp. 1-5.

CHESAPEAKE BAY

Collins R.C. and Waters, E.B. 1989. Building Concensus on Land Use and the Chesapeake Bay. Coastal Zone 89' Proceedings of the Sixth Symposium on Coastal and Ocean Management. Conference Location: Charleston, SC, USA. July 11-14, pp. 4029-4035.

Cumberland, J.H. 1991. Improved policy instruments for management of enclosed coastal seas and estuaries: The Chesapeake Bay, USA. International Conference on the Environmental Management of Enclosed Coastal Seas '90: Kobe, Japan, 3-6 Aug 1990 (eds. Goda,T. et al.), pp. 773-777.

The most coherent and systematic critique of current environmental policy instruments has come from the discipline of economics, which has provided detailed technical recommendations for policies utilizing economic incentives, such as pollution taxes and marketable permits, to pursue efficiency objectives. However, the limited acceptance of economic incentive based environmental policy instruments in the U.S. suggests that economic efficiency alone is too narrow a criterion upon which to base improved regulatory policy. The purpose of this paper is to explore a broader based public choice approach to environmental management, under which policy instruments, in addition to meeting the criterion of economic efficiency, would also meet acceptable standards for distributional equity, scientific validity (especially ecological sustainability), and acceptability by the major interest groups involved. The discussion of current policy instruments, their limitations, and suggestions for improvement are summarized in a policy matrix.

Hennessey, T.M. 1994. Governance and adaptive management for estuarine ecosystems: The case of Chesapeake Bay. Coastal Management, 22 (2), pp. 119-145.

This article analyzes the governance system of the Chesapeake Bay Program in order to examine the hypothesis that it operates according to adaptive management principles. After a discussion of adaptive management and implementation, we analyze the development of the program from its inception in 1976 until the present day. We argue that adaptive management in the program came about via a dynamic relationship between science and governance that evolved through three phases over 16 years. During this time, the Chesapeake Bay Program developed a learning, adaptive capacity whereby program elements and institutional structures underwent significant changes in light of new information. This approach encouraged the evolution of the program from one that initially addressed a limited number of issues using a rudimentary management structure to the current program, which uses a sophisticated set of baywide indicators of ecosystem health and is governed by an institutional structure that coordinates management activities across federal, state, and local governments around the bay in order to implement 29 specific programs in six major policy areas. The article concludes with an overall assessment of the Chesapeake Program that identifies its major strengths and weaknesses.

Liebmann, G.W. 19??. The Chesapeake Bay critical area law: The evolution of a statute. In Coastal Management, 19 (4), pp. 451-468.

This article describes the drafting and development of the Maryland Chesapeake Bay Critical Area Act, one of the leading corridor zoning statutes. It explains the state's decision to regulate local zoning and subdivision approval powers, in preference to other approaches that would have mandated elaborate planning exercises or directly involved the state government in approving particular development applications. The progress of the statute toward enactment is traced, and the limited legislative changes are explained.

CONNECTICUT

Department of Environmental Protection. 1992. Final assessment of the Connecticut coastal management program. Prepared pursuant to the Coastal Zone Enhancement Grants Program, section 309, Coastal Zone Management Act, Hartford, Conn.

Giampa, D. 1988. Coastal management in Connecticut: beyond the first decade. State of Connecticut, Department of Environmental Protection, Coastal Management Program, Hartford, Conn.

FLORIDA

Arnold, D.W. and Leitman, S. 1991. Decision Making Using the Florida Coastal Management Program

0 A Case Study in Apalachicola Bay, Florida. Coastal Zone 91', Proceedings of the Seventh Symposium on Ocean and Coastal Management Long Beach California, USA July 8-12, 1991. American Society of Civil Engineers, New York. pp. 655-670.

Barley, G. 1993. Integrated coastal management. The Florida Keys example from an activist citizen's point of view. Oceanus, 36 (3), pp. 15-18.

The Florida Keys, a series of islands connected to each other and the mainland by bridges and a freshwater line, were developed haphazardly. For example, 30,000 septic tanks and cesspits, along with uncontrolled, untreated storm-water runoff, constitute an unmonitored, potentially serious inshore pollution problem. On the Atlantic side, a magnificent coral reef system exhibits serious symptoms of stress, while on the Gulf of Mexico side the Florida Bay ecosystem is in collapse. The multitude of authorities with jurisdiction in the keys include two federal fishery management councils, National Marine Sanctuary and Monroe County officials, several state agencies, and federal fish and wildlife and state underwater park management agencies. Fishery pressure from large recreational and commercial groups is increasing. Jet skiers, divers, fishermen, ocean freighter operators, treasure salvors, and boaters all exert pressure on Florida Keys marine resources. Following Congress's 1990 designation of the Florida Keys National Marine Sanctuary, the National Oceanic andAtmospheric Administration (NOAA) brought representatives of user groups and the public together with federal and state agency officials to assemble an integrated coastal management plan. How has it worked, and what has been learned from the process?

Bard, D. 1993. Indian River Lagoon Concensus Management, Florida. The Mangement of Coastal Lagoons and Enclosed Bays. (eds. Sorenson et al.) American Society of Civil Engineers, New York, pp. 156-177.

Bernd-Cohen, T. et al. 1993. Revitalizing the Florida Coastal Management Program. Coastlines of the Gulf of Mexico. (eds. Laska, S and Puffer, A.) American Society of Civil Engineers, New York.

Brindell, J.R. 1990. Florida coastal management moves to local government. Journal of Coastal Resources. 6(3), pp. 727-733.

A new generation of regulation is about to appear in Florida as a product of the state comprehensive planning process mandated by the Legislature in 1985. All local governments must develop comprehensive plans. Each coastal county and municipality must have a coastal management element in its plan and must adopt development regulations implementing the various policies of the plan. Those governments have the option of developing their own coastal regulations or incorporating by reference existing state or federal regulations on coastal resources.

Christie, D. and Johnson, P. 1990. State Ocean Policy Initiatives in Florida. Coastal Management,18 (3), pp.283 -297.

Florida ocean management policy initiatives, directed toward a better understanding and management of ocean resources and uses, are presented and assessed. Due to the state's close relationship with the sea, coastal management will undoubtedly remain of vital concern. Florida continues to focus on education and research as keys to preserving and managing the state's oceans and marine resources, as has been shown by assuring adequate research and education programs and substantial funding in its 1989 legislation.

Godschalk, D.R. and Erwin, K.L. 1988. Merging management and science: The Lee County, Florida coastal planning process. Proceedings of the Symposium on Coastal Water Resources Wilmington, NC (USA), (eds. Lyke, W.L., Hoban,T.J), pp. 627-634.

Lee County, on the south Gulf coast, has one of the most complex coastlines in Florida. The coastal planning process for Lee County developed a new methodology for mapping and analyzing coastal ecosystems, and for translating the findings into planning recommendations. This process effectively merged coastal management and coastal science. It provided local planners with a defensible rationale for regulating future development within one of the fastest growing counties in the U.S. This paper describes the planning process and proposed goals, objectives, and policies. It discusses the technical issues involved in detailed watershed-based, land-cover mapping, and the policy issues involved in translating these technical data into management recommendations.

Godschalk, D.R. and Spikowski, W. 1989. Managing Coastal Resource and Development Demands. The Lee County, Florida Plan. In. Coastal Zone 89' Proceedings of the Sixth Symposium on Coastal and Ocean Management. Charleston, SC, USA. July 11-14, pp. 2515-2528.

Soden, D.L. 1990. Managing Florida's coastal resources: Technical complexity and public attitudes. Report of the Florida Sea Grant Program. University of Florida.

Florida is dependent on its coastal resources for its economic, as well as social foundation. Public involvement in the policy process attendant to coastal resources is mandated by law, but hindered because of the scientific and technical nature of the issues. The project reports findings from a statewide survey conducted in 1988 designed to investigate the attitudes held about coastal resources, management programs and technical information factors among three sets of policy process actors--the general public, the activist public and policy elites.

Department of Environmental Regulation. 1989. Florida Coastal Management Program: federal consistency evaluation procedures. Department of Environmental Regulation.

GREAT LAKES

Holt, P. and Cunningham, C. 1993. Coastal Zone Management in the United States Great Lakes with Special Reference to Lake Michigan Michigan Department of Natural Resources. Lansing, University of Waterloo Heritage Resource Centre/et al Managing the Great Lakes Shoreline: Experiences & Opportunities, Workshop, Waterloo, ON, Canada, October 22-23, pp. 61-79.

The Federal Coastal Management Program, under the auspices of NOAA, funds and oversees state coastal management programs. Of the eight states bordering the Great Lakes, four have approved such programs, and two are in the process of developing plans. The established plans in Wisconsin, New York, Pennsylvania, and Michigan are described, with special emphasis on Michigan, which was one of the first states to join the federal program. The program in Michigan is administered by the Land and Water Management Division of the Department of Natural Resources. An extensive array of regulatory statutes have been initiated to manage the increasing conflict arising from multiple demands on the resources in the basin. Several of these statutes are described: the Shoreline Protection and Management Act, the Sand Dunes Protection and Management Act, the Great Lakes Submerged Lands Act, the Goemaere-Anderson Wetland Protection Act, the Inland Lakes and Streams Act, the Underwater Salvage Act, and the St. Clair Flats Act. While zoning in Michigan is largely a local issue, a package of growth management bills has been written and is expected to be introduced in the next legislative session.

Wever, G.H. 1995. Applying a TQM framework to the public policy process: Part I - the framework. Total Quality Environmental Management, 4 (3), pp. 63-73.

In Part I of this article, a TQM framework is described that can be used to analyze as well as

manage the public policy process. Key elements of the framework include leadership, issues analysis, goal and policy development, strategic vehicles, implementation, indicators and outcomes, and stakeholder review. The framework can be used to analyze public policy cycles, predict future issues and outcomes, and develop more sustainable approaches to manage linked economic, environmental, and societal issues. In Part II, the framework is used to examine the effectiveness of management of environmental issues in the Great Lakes region over the past three decades and to demonstrate the need for a more integrated approach to regional management.

GULF OF MAINE

Marine Law Institute. 1991. Formalizing the Gulf of Maine initiative: institutional arrangements for implementing the Gulf of Maine initiative. Portland, Me.

Underwood, P., Waterman, M. and Keeley, D. 1991. Building a Regional Concensus for Ecosystam Management - A Gulf of Maine Experience. Coastal Zone 91' Proceedings of the Seventh Symposium on Ocean and Coastal Management Long Beach California, USA July 8-12. American Society of Civil Engineers, New York. pp. 865-872.

Gulf of Maine Council on the Marine Environment. 1992. Annual report. Fredericton, N.B.

HAWAII

Eisen, T.H. 1993. Master Planning to Rsolve Hawaiian Coastal Problems. Coastal Zone 93'. Proceedings of the Eighth Symposium on Coastal and Ocean Management, New Orleans, Louisiana, July 19-23. American Society of Civil Engineers, New York, pp. 3168-3171.

Gopalaikrishnan, C. and Davidson, J.R. 1989. Institutional Constraints to Coastal Zone Mangement in Hawaii - A Review and critique. Coastal Zone 89', Proceedings of the Sixth Symposium on Coastal and Ocean Management,Charleston, SC, USA. July 11-14. pp. 4036-4040.

Gopalakrishnan,C., Davidson, J.R. 1988. Coastal zone use conflicts, their identification and resolution: The case of Hawaii. Symposium on Coastal Water Resources, Wilmington, NC, 1988, (eds. Lyke, W.L., Hoban, T.J.), pp. 613-618.

The coastal zone plays a crucial role in Hawaii's economy. Its spectacular growth has resulted in an expanding array of the use conflicts in recent years. The conflicts center primarily on massive resort development by private developers. Coastal water pollution due to rapid urbanization and industrialization, a major conflict source in the past, is now largely corrected. As the diversity and intensity of coastal zone use conflicts have escalated, Hawaii has developed and implemented a comprehensive Coastal Zone Management Program (HCZM) and a Special Management Area (SMA) permit system to tackle these conflicts. The paper describes these approaches and assesses their effectiveness and usefulness in conflict identification and resolution.

Lee, W.M. 1993. Coordination + Cooperation = Synergy - Hawaii's Key to Success. Coastal Zone 93'. Proceedings of the Eighth Symposium on Coastal and Ocean Management, New Orleans, Louisiana, July 19-23, 1993. American Society of Civil Engineers, New York, pp. 3144-3152.

Lowry, K. 1988. Coastal Area Management: a Hawaii Case Study. Association of Southeast Asian Nations/et al Coastal Area Management in Southeast Asia Conference, Johore Bahru, Malaysia, Oct 25-27, pp. 103-116.

The development and implementation of coastal zone management programs is financially

supported by the US National Coastal Zone Management Act. Several such programs have been carried out in Hawaii, largely using a permit system administered at the county level. These permits have been issued for developing recreational areas, setting aside coastal hazard areas, preserving historic and scenic sites, and evaluating coastal ecosystems. The system is generally seen as being more favorable to recreational use and historic preservation than to habitat protection or inland development.

Lowry, K. 1989. Coastal area management: A Hawaii case study. ASEAN/US Policy Workshop on Coastal Area Management, Johore Bahru (Malaysia), 25-27 October, (eds. Chua, T.E. and Pauly, D) ICLARM Conference P{roceedings No. 19, pp. 103-115.

The US National Coastal Zone Management Act provides generous grants to coastal states that develop and implement coastal management programs consistent with the national act. Hawaii was one of the first states to participate in the program. Hawaii manages coastal resources by means of several laws and programs, but the primary management mechanism is a permit system administered by the counties within a coastal strip around each island. This paper outlines the design and implementation of this permit system.

MacDonald, C.D., Clark, A.M., and Shannon, S. 1991. Coastal Zone 91', Proceedings of the Seventh Symposium on Ocean and Coastal Management Long Beach California, USA July 8-12, 1991. American Society of Civil Engineers, New York, pp. 2633-2644.

Nitz, K.K. 1989. Citizen Participation in Managing Hawaiis Coastal Zone. Coastal Zone 89' Proceedings of the Sixth Symposium on Coastal and Ocean Management, Charleston, SC, USA. July 11-14, pp. 925-939.

MAINE

State Planning Office. 1994. Maine Coastal Program: Coastal priorities statement. Augusta, Me.

State Planning Office. 1988. Coastal management techniques: a handbook for local officials. Augusta, Me.

Kelley, J.T. 1989. Living with the coast of Maine. Duke University Press.

MASSACHUSETTS

Smrcina, Anne I. 1988. The coastalwealth of Massachusetts: celebrating a decade of coastal zone management 1978-1988. Massachusetts Coastal Zone Management. Boston, Mass.

MISSISSIPPI

Department of Wildlife Conservation. 1993. Mississippi coastal program, NOAA Technical Memo. pp. 252.

The Mississippi Coastal Program is built around ten goals that are: To provide for reasonable industrial expansion in the coastal area and to insure the efficient utilization of waterfront industrial sites; to favor the preservation of the coastal wetlands and ecosystems; to protect, propagate, and conserve the state's seafood and aquatic life; to conserve the air and waters of the state, and to protect, maintain, and improve the quality thereof for public use, for the propagation of wildlife, fish and aquatic life; to put to beneficial use to the fullest extent of which they are capable the water resources of the state; to preserve the state's historical and archeological resources; to encourage the preservation of natural scenic qualities in the coastal area; to consider the national interest involved in planning for

and in the siting of facilities in the coastal area; to assist local governments in the provision of public facilities services. [Revision of report dated 1 Oct 1980. See also PB81-133845. Portions of this document are not fully legible. Sponsored by National Oceanic and Atmospheric Administration, Washington, DC. Office of Ocean and Coastal Resource Management.] (DBO)

McLaughlin,R, Howorth, L.S. 1991. Mississippi ocean Policy Study. Mississippi-Alabama Sea Grant Consort., Ocean Springs, USA, pp. 117.

Contents: Physical and Cultural Setting; Government Structure; State Submerged Lands Jurisdiction; Coastal Zone Management Act and Federal Consistency; Marine ollution; Offshore Mineral Resources; Oil and Hazardous Substance Spills; Living Resources Management; Marine Recreation; Marine Education and Research; Marine Salvage and Finds; Protected Marine Areas; Management Frameworks for Improved Interstate, Interagency, and Citizen Participation; Model Legislation for Mississippi Ocean Resources Management Planning Act; Mississippi Ocean Policy Survey Results. (DBO)

NATIONAL ESTUARY PROGRAM

Colt A.B. 1994. The challenges of integrated estuarine management in the United States. Coastal Management, 22 (4), pp. 369-387.

This paper briefly identifies the challenges of incorporating estuarine management programs into integrated estuarine management (IEM) frameworks being developed by the National Estuary Program (NEP). Specifically, how do emerging scientific imperatives justify and continuing uncertainties impede NEP initiatives within the context of American pluralism? Such obstacles to IEM can be lessened by assessing when incremental decision-making approaches are optimal and when they are obstructive and by focusing more upon the resolution of multiple use conflicts. Comprehensive assessments and plans for estuaries would be enhanced by using water quality standards to coordinate segmented management programs and by analyzing the socioeconomic dimensions of alternative means for meeting water quality standards.

Gordon, E. 1989. Coastal Zone Management and the National estuary Program - Why Both? Coastal Zone 89' Proceedings of the Sixth Symposium on Coastal and Ocean Management. Conference, SC, USA. July 11-14. pp. 4022-4028.

Imperial, M.T. et al. 1993. The evolution of adaptive management for estuarine ecosystems: the National Estuary program and its precursors. Ocean and Coastal Management, 20 (2), pp. 147-80.

Assesses the suitability of the Management Conference as a governance system and the capacity of states to implement the Comprehensive Conservation and Management Plans; US. Some focus on the Great Lakes program.

Imperial, M.T. and Hennessey, T.M. 1993. The National Estuary Program: A Preliminary Evaluation of the Management Conference Process. Coastal Zone 93'. Proceedings of the Eighth Symposium on Coastal and Ocean Manageement, New Orleans, Louisiana, July 19-23. American Society of Civil Engineers, New York, pp. 1133 -147.

Hiller, M.A. 1991. The National Estuary Program and public involvement. International Conference on the Environmental Management of Enclosed Coastal Seas '90, Kobe, Japan, 3-6 August. (eds. Goda,T., et al.), pp. 645-648.

The U.S. Environmental Protection Agency is using collaborative problem solving and consensus building to address environmental problems in the nation's estuaries. The National Estuary Program establishes management conferences to develop and implement a comprehensive conservation and management plan for estuaries of national significance. Representatives of federal, state, and local governments, the academic and scientific communities, and the public and private sectors are tasked to agree on the most important problems and the corrective actives needed. The comprehensive plan recommends priority corrective actions and compliance schedules addressing point and nonpoint sources of pollution to restore and maintain the chemical, physical, and biological integrity of the estuary. An important component of public involvement in the National Estuary Program is citizens volunteer monitoring. Volunteer monitoring data is collected and used to meet a number of different water quality management objectives.

Rubin, K., Hardison, M., Brodie, R., Callender, T., and Cardon, E. 1988. Financing marine and estuarine programs: A guide to resources.

Under the U.S. Environmental Protection Agency's (EPA) National Estuary Program, state resource managers, town planners, and local administrators jointly develop plans to protect the coastal waters and preserve the living resources of the estuaries. The three-part document, Financing Marine and Estuarine Programs: A Guide to Resources, will help estuarine and marine managers understand the concepts and terminology of public finance, and secure the funds needed to support restoration and protection programs. The first part of the report, the financial primer, introduces basic financing concepts and explains the initiatives needed to begin financial planning for long-term resource management activities. The second part, the case studies, provides specific examples of how some towns and cities have raised money to solve specific water quality problems. Finally, the glossary serves as a quick reference to the financial terminology that managers unfamiliar with financial planning need to understand.

Environmental Protection Agency. 1989. Saving Bays and Estuaries: A Primer for Establishing and Managing Estuary Projects. Environmental Protection Agency, Washington, DC, Office of the Assistant Administrator for Water Report EPA/503/8-89/001.

The report contains chapters on planning, building a management framework, defining the problem, and devising a comprehensive conservation and management plan.

NATIONAL MARINE SANCTUARIES

Barley, G. 1993. Integrated Coastal Management: The Florida Keys Example. Oceanus. 36 (3). pp. 15

Ehler, C.N. and Basta, D.J. 1993. Integrated management of coastal areas and marine sanctuaries. A new paradigm. Oceanus. 36 (3), pp. 6-13.

Most coastal areas of the US - and the world - face urgent, increasingly severe problems of rapidly growing human populations, deteriorating environmental quality, loss of critical habitats, diminishing levels of fish and shellfish populations, reduced biodiversity, and increased risk from natural hazards. Several characteristics are common to the management of coastal areas: increasing conflicts among economic development, environmental protection, and natural resource (including marine sanctuary) management objectives; growing numbers of coastal resource users and increasing conflicts among them; multiple-agency authorities and jurisdictions, and little or no coordination between levels of government and across agencies within the same level of government; limited or inadequate financial and human resources for management activities; incomplete data, information, and understanding of coastal problems; and public and political expectations that coastal problems have

immediate solutions.

Galasso, G.A. 1994. The use of coordinating mechanisms in the management of national marine sanctuaries. In. Coastal Zone Canada '94, Cooperation in the Coastal Zone, Halifax, NS, Canada, 1994. (eds. Wells, P.G. Ricketts, P.J.). pp.1734-1748.

This paper provides illustrative examples of coordinating mechanisms, by which the sanctuary program fulfills its mandate to provide enhanced resource protection through comprehensive and coordinated conservation and management that complements existing regulatory authorities. These collaborative efforts may be the greatest contribution that the sanctuary program can bring to the area of ocean management. Currently the oceans are managed resource by resource with little regard given to an integrated view of ecosystems. The interdisciplinary approach of these cooperative agreements may be a necessary first step toward a more comprehensive policy of ocean management.

NEW HAMPSHIRE

Office of State Planning. 1990. New Hampshire Coastal Program Activities Report, 1990. New Hampshire Coastal Program.

NEW JERSEY

Abel, R.B. 1989. Impact of the CZM Act (1972) on New Jersey - Overview. Coastal Zone 89' Proceedings of the Sixth Symposium on Coastal and Ocean Management, Charleston, SC, USA. July 11-14, 1989, pp. 4592-4594.

Linky, E.J. and Beaton, P. 1989. Coastal Regulatory Reform in New Jersey. Coastal Zone 89' Proceedings of the Sixth Symposium on Coastal and Ocean Management. Conference Location: Charleston, SC, USA. July 11-14, 1989, pp. 3214-2327.

NORTH CAROLINA

Beckner, AL. 1993. Coastal Zone Management on the Atlantic Seaboard: Two Different Approaches by the Carolinas. University of Baltimore journal of environmental law. 3 (1), pp. 62.

Cunningham, M.G 1988. The implementation of policy: Coastal zone management. Symposium on Coastal Water Resources Wilmington, NC, USA (eds. Lyke, W.L., Hoban, T.J.) pp. 575-586.

In 1972 Congress stated that coastal resource management was of national interest. The passage of the Coastal Zone Management programs through financial assistance to the states. From the outset of the federal program in 1972, it was apparent that its vagueness would allow individual states to create and assess goals according to individual priorities. Some states immediately adopted policies that primarily sought the protection of the coastal environment. Others languished. This paper compare and contrasts the facts related to the implementation of the federal Coastal Zone Management Act by two neighboring states - North Carolina and South Carolina

Orbach, M.K. and Queen, W.H. 1990. Ocean Policy Initiatives in Coastal States: North Carolina's Experience. Coastal Management. 18(3), p267-173.

In 1968, the North Carolina Council on Marine Sciences was established to evaluate the relationship among all of the state's marine programs. Following this, the North Carolina Marine Science Council was set up. North Carolina's recent ocean policy initiatives are described in detail, specifically: the 1985 ocean policy analysis by the Council; the appointment of the State-Federal Ocean

PhosphatesTask Force; and the creation of the Outer Continental Shelf Office.

North Carolina Coastal Futures Committee. 1994. Charting a course for our coast: a report to the Governor. Raleigh, N.C..

OREGON

Good, J.W. 1994. Shore protection policy and practices in Oregon: an evaluation of implementation success. Coastal Management. 22, pp. 325-52.

Examines measures taken to prevent erosion; recommendations for changes in order to comply with the 1990 amendments to the federal Coastal Zone Management Act.

Hout, E. 1990. Ocean Policy Development in the State of Oregon, Coastal Management. 18 (3), pp.255-267.

In Oregon, the Ocean Resource Management Task Force is preparing the Oregon Ocean Resources Management Plan. The Plan has four major elements: an analysis of state and federal laws,programs, and regulations affecting ocean resources within the planning area; a study of present and future ocean uses off Oregon, and an analysis of the state's management regime for such uses; maps and other information about ocean conditions, uses, and resources, computerized to facilitate plan decisions; and recommendations to develop or improve state agency programs for managing ocean resources. The plan is described, from its inception to the present. Oregon's ocean planning program is viewed nationally and internationally as a forward-looking and innovative approach to ocean governance.

Oregon Ocean Resources Management Task Force. 1991. Oregon's ocean resources management plan. The Task Force. Portland.

Medler, J.F and Mushkatel, A. 19??. Environmental Policy, New Federalism and New Privatism: Policy Conflicts in the Coastal Zone. Policy Stud Review, 11 (1), pp. 100-110

States are encountering conflicting environmental policy problems as a result of public policies developed under the new federalism of the 19~0s and the new privatism of the 1980s. Environmental policymaking in the coastal zone is discussed to exemplify such policy conflict, with emphasis on the conflict between the need to protect renewable resources and the need for economic growth in the coastal zone. A case study of comprehensive land-use planning in Oregon and the federal sector's proposal to develop seabed mining offshore Oregon is presented. New federalism produced a conservation- oriented coastal plan promoting controlled growth and coastal resource protection, while new privatism, as marked by the offshore mineral lease proposal, is growth-oriented and promotes coastal resource exploitation.

RHODE ISLAND

Briliat, T.H. 1990. Harbor management planning: Issues and problems in Rhode Island. Maritimes 1990. 34 (3), pp. 12-15.

In 1988 the Rhode Island Coastal Resources Management Council (CRMC), the state agency responsible for shoreline planning, initiated a program designed to achieve better management of local waters and waterfront. The CRMC Harbors Management Project required that each coastal municipality develop and implement a harbor management plan (HMP). These plans, when completed

will serve as guides and enforcement tools for individual municipalities to achieve effective and efficient management control of local environmental, economic, and social problems related to coastal water and waterfronts. The plans will balance the demands of the multiple user groups and help shorten the review process for CRMC project permits.

TEXAS

Curley, S. 1990. Texas Coastal Plan: Analysis of a Failure. Coastal Management. 18 (1). pp. 1

Keller, R.L., Masterson, C.E., Mitchell, G., Polasek, E.G., Taebel, J.M., Pennington, O., Ruhl, J.B., Williams, C. 1994. Implementation Strategy For The Galveston Bay Plan. Publ. Galveston Bay Natl Estuar.Program Report No: GBNEP-46. pp. 140.

The Galveston Bay Plan recommends 82 management actions to be carried out by 20 federal and state agencies, over 100 local governments and special purpose districts, and other bay users. This report describes how Plan implementation will be led by a newly created Galveston Bay Program of the Texas Natural Resource Conservation Commission and outlines the major roles of other federal, state, and local governments, "stakeholders," and the public. A summary table of agency responsibilities for each of The Plan's actions is also included in this document. This report also identifies the possible enforceable policies in each of The Plan's actions, and cites the relevant federal and or state statutory and regulatory basis for enforcement. Additional actions required (if any) to make the policies enforceable are also described. Based on the analysis of enforceable policies, necessary federal and state legislation, Memoranda of Understanding, and local ordinances are identified. The report concludes with a description of how implementation results will be tracked and evaluated.

Prater, C. 1992. Coastal zone management in Texas. Environmental and Urban Issues. 20, pp. 23-31.

Results of a telephone survey of those participating in a workshop leading to development of the Texas Coastal Management Plan, May 1991.

General Land Office. Texas Coastal Management Program. Austin, Texas

VIRGINIA

Rose, J.G., Grissom, T.A., and Carlock, J.M. 1995. Local government role in shoreline management. Second . Annu. Marine and Estuarine Shallow Water Science and Management Conference, Atlantic City, NJ (USA), 3-7 April.

The Commonwealth of Virginia, a signatory to the state-federal Chesapeake Bay Agreement, has developed several programs, including the cooperative state-local Chesapeake Bay Preservation Act (CBPA) program, to carry out its responsibilities under the Agreement. The CBPA requires local governments in Tidewater Virginia to incorporate shoreline issues, such as public and private access and shoreline erosion, and policies for managing them into their comprehensive plans. These policies are to reflect comprehensive inventories and analyses of shoreline conditions.

WASHINGTON

Bookman, C.A. 1995. Sea Change In Washington. An Agenda For Action. Sea technology. 36 (1), pp. 59

Charles A. Bookman, Marine Board provides reasons why the time is at hand for formulating

integrated management strategies for ocean and coastal activities.

Gamble, D.B. and Day, J.C. 1989. Coastal Zone Manageemnt in Boundary Bay, B.C. and Cherry Point, WA. Coastal Zone 89' Proceedings of the Sixth Symposium on Coastal and Ocean Management. Charleston, SC, USA. July 11-14, 1989. pp. 4166-4180.

Johnson, R.W., Craighton G., Jansen, D. and Paschal, R. 1992. The public trust doctrine and coastal zone management in Washington State. Washington Law Review, 67 (3), pp. 521-597.

Lind, K.A. and Hershman, M.J. 1993. Grays Harbour, Washington Estuary Management Plan. The Management of Coastal Lagoons and Enclosed Bays. (eds. Sorenson et al.) American Society of Civil Engineers, New York, pp. 191-204.

Sorensen, D. and Hershman, M. 1990. Ocean Policy Development in the State of Washington. Coastal Management. 18(3), pp. 297-111.

Ocean management policy in Washington since 1970 is outlined. Agencies discussed include the Oceanographic Commission of Washington and the Oceanographic Inst of Washington, both eliminated in 1982, and the Dept of Ecology and the Marine Land Div of the Dept of Natural Resources. The Ocean Resources Management Act, enacted in 1989, takes a modest step toward the development of substantive policies for the state. The Washington legislature should establish a broad-based task force to deal with ocean policy development, structured so that linkages among executive agencies and between scientists and managers are strengthened.

?????? Grays Harbor estuary management plan: Program final environmental impact statement Washington state coastal zone management program Amendment No. 3.

The Grays Harbor Estuary Management Plan (plan) is a long-range, coordinated, comprehensive plan designed to guide future land and water use activities in Grays Harbor. It will be implemented through individual local Shoreline Master Programs under the Washington State Shoreline Management Act, other ordinances, and through various State and Federal regulations and permit actions. The focus of the plan is to define areas in which future activities and growth would be deemed acceptable while minimizing adverse impacts. The plan seeks to provide a balance between future development activities and the productive capacity of the estuarine system; minimize conflicts between resource users and regulators by enhancing the predictability of government permit decisions associated with the location of the future developments.